Bonneville Power Administration
Fish and Wildlife Program FY99 Proposal

Section 1. General administrative information

Rehabilitate Lapwai Creek

Bonneville project number, if an ongoing project 9122

Business name of agency, institution or organization requesting funding
Nez Perce Tribal Fisheries/ Watershed Management Program

Business acronym (if appropriate) NPT

Proposal contact person or principal investigator:

Name Ira Jones
Mailing Address Box 365
City, ST Zip Lapwai, ID 83540
Phone (208) 843-7406
Fax (208) 843-7322
Email address iraj@nezperce.org

Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name
Idaho Department of Transportation	P.O. Box 837	Lewiston, ID 83501-0837	Glenda Deitrick
Earth Conservation Corp.- Salmon Corp.- Nez Perce	P.O. BOX 689	Lapwai, ID 83540	Heidi Stubbers

NPPC Program Measure Number(s) which this project addresses.

SECTION 7.6 - HABITAT GOALS, POLICIES, AND OBJECTIVES; SECTION 7.7 - COOPERATIVE HABITAT PROTECTION AND IMPROVEMENT WITH PRIVATE LANDOWNERS; SECTION 7.8 - IMPLEMENT STATE, FEDERAL, AND TRIBAL HABITAT IMPROVEMENTS

NMFS Biological Opinion Number(s) which this project addresses.

The Biological Opinion is in the process of being developed for the Clearwater Subbasin and is projected to be complete in January of 1998.

Other planning document references.

Boneville Power Administration, 1997. Watershed Management Program: Final Environmental Impact Statement.

Columbia Basin Fish and Wildlife Authority, 1997. Intergrated Watershed Projects: The Process and Criteria for Selecting Watershed Projects for the Columbia Basin Fish & Wildlife Program.

Columbia River Fish & Wildlife Program, 1994. Columbia River Basin Fish & Wildlife Program

CRITFC, 1995. WY-KAN-USH-MI WA-KISH-WIT, Spirit of the Salmon. Volume I & II. Portland, Oregon.

Nez Perce Tribe and Idaho Department of Fish & Game, 1990. Clearwater River Subbasin Salmon and Steelhead Production Plan. Northwest Power Planning Council & CBFWA. Bosie, Idaho.

Subbasin.

Clearwater Subbasin

Short description.

Restore Lapwai Creek to improve fish habitat and decrease negative effects of flood events within the drainage.

Section 2. Key words

Mark	Programmatic Categories	Mark	Activities	Mark	Project Types
X	Anadromous fish	X	Construction	X	Watershed
*	Resident fish		O & M		Biodiversity/genetics
*	Wildlife		Production		Population dynamics
	Oceans/estuaries		Research	*	Ecosystems
	Climate		Monitoring/eval.	*	Flow/survival
	Other		Resource mgmt		Fish disease
		*	Planning/admin.		Supplementation
			Enforcement	*	Wildlife habitat en-

_____ Acquisitions hancement/restoration

Other keywords.

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship
8909800	Idaho Supplementation Studies	Habitat improvement for supplementation populations
9608600	Clearwater Watershed Coordinator-Idaho Soil and Conservation District	Coordinate all projects within the Clearwater Subbasin.
9600600	Clearwater Watershed Coordinator-Nez Perce Tribe	Coordinate all projects within the Clearwater Subbasin.
8909802	Nez Perce Tribal Research	Research anadromous species within the Clearwater Subbasin.
83350	Nez Perce Tribal Hatchery	Watershed protection and restoration for anadromous fish.

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Restore stream banks from Culdesac to the mouth	a	Install fish structures (weirs, instream cover, barbs, etc.)
		b	Restore riparian vegetation with native plants and grasses.
2	Identify repair needs beyond the scope of the existing project and its funding	a	Assess and quantify amount of habitat damage.
		b	Produce project description and cost estimates.
		c	Identify other funding sources.
		d	Explore private land cooperative projects on Lapwai Creek.

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1	7/1999	9/1999	80.00%
2	1/1999	12/1999	20.00%

			TOTAL 100.00%

Schedule constraints.
EXISTING SCHEDULES FOR THE 1999 BUDGET YEAR MAY CHANGE DUE TO WEATHER CONDITIONS. THERE ARE ALSO SMALL NUMBERS OF FISH STILL USING THE STREAM,THEREFORE, WE WILL BE REQUIRED TO LEAVE THE STREAM DURING TIMES OF SPAWNING AND MIGRATION OF ADULTS.

Completion date.
2010

Section 5. Budget

FY99 budget by line item

Item	Note	FY99
Personnel		$86,085
Fringe benefits		$9,683
Supplies, materials, non-expendable property		$1,500
Operations & maintenance		
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		
PIT tags	# of tags:	
Travel		$2,500
Indirect costs		$31,364
Subcontracts		$337,500
Other	vehicle costs	$8,640
TOTAL		$477,272

Outyear costs

Outyear costs	FY2000	FY01	FY02	FY03
Total budget	$300,000	$180,000	$100,000	$100,000
O&M as % of total	30.00%	60.00%	70.00%	70.00%

Section 6. Abstract

Lapwai Creek has historically supported A-run Steelhead and resident trout populations but because of commercial, agricultural, natural events and transportation activities it has become a low functioning stream. Highway 95 south parallels its channel causing the stream to be channelized for more than 10 miles. Stream reaches that are not channelized were heavily damaged in the 1996 flood event, which caused riparian vegetation to up-root, gravel's were deposited, stream banks eroded and stream was forced out of its original stream channel. Following the flood, dozers and backhoes were allowed to enter the stream channel without restriction or regard for fisheries habitat protection. The flood in combination with stream excavation, intended to abate future flood impacts, have compounded the damage done to fisheries habitat.

Section 7. Project description

a. Technical and/or scientific background.

The events mentioned in the abstract section have caused devastating effects on Lapwai Creek. The proposed work area for the 1999 season is roughly five miles and involves the improvement of fish resources on Lapwai Creek. Problems impacting fish resources include logging, road building, grazing, mining, barriers, and others (CRITFC, 1995). These problems create specific major habitat constraints. Included in these constraints are sedimentation, low flows, water quality (temperatures), migration barriers, rearing and spawning habitat, riparian degradation and channel/bank instability (CRITFC, 1995).

The two objectives our project proposes strives towards meeting all of the goals and objectives found in the Fish Restoration Plan of the Tribes (CRITFC, 1995), as stated below with explanations of how our projects fit into each of them:

ANADROMOUS FISH RESTORATION PLAN OF THE FOUR TRIBES
GOALS

- **Restore anadromous fishes to the river and streams that support the historical culture and economic practices of the tribes.**
- **Emphasize strategies that rely on natural production and healthy river systems to achieve this goal.**
- **Protect tribal sovereignty and treaty rights.**
- **Reclaim the anadromous fish resources and the environment on which it depends for future generations.**

Putting fish back into river and stream systems alone are not enough to restore their populations, they need a healthy system to return, spawn, and rear in. Our proposal objectives will mitigate (in place, in kind) the problems stated above by decreasing sediment into the creek (restoring and increasing spawning areas) and produce riparian and stream bank vegetation (decreasing stream temperatures, increasing rearing habitat, producing cover for fish and wildlife, stabilizing stream banks).

The project proposal also protects the goal of tribal sovereignty and treaty rights. In the Treaty of 1855, the Nez Perce Tribe ceded much of their aboriginal territory to the United States in exchange for a reservation that was to serve as a permanent homeland. In that treaty, the Nez Perce Tribe reserved certain rights including, "the exclusive right of taking fish in all the streams running through or bordering said reservations is further secured to said Indians (Nez Perce Treaty of 1855)." According to this, the government has a trust agreement to protect all tribal resources. The proposal will work toward protecting our resources, therefore fulfilling the governments responsibilities. The project will also allow the tribe to manage our own tribal resources, which will in turn protect our sovereignty and treaty rights. This is called for in the *National Indian Forest Resource Management Act (PL 101-630)*, which provides for the management of forested tribal trust lands (USDA, 1997).

CRITFC OBJECTIVES

- **Within 7 years, halt the declining trends in salmon, sturgeon, and lamprey populations originating upstream of Bonneville Dam.**
- **Within 25 years, increase the total adult salmon returns of stocking originating above Bonneville Dam to 4 million annually and in a manner that sustains natural production to support tribal commercial as well as ceremonial and subsistence harvests.**
- **Within 25 years, increase sturgeon and lamprey populations to naturally sustainable levels that also support tribal harvest abundance in perpetuity.**

The first objective states halting declining salmon and lamprey trends within 7 years. Re-vegetation of the riparian and stream bank areas should produce bank stabilization within 2 years and cover between 4 to 5 years of planting. This is within the 7 years objective of the Tribes plan.

b. Proposal objectives.

OBJECTIVE 1: Stream banks stabilization, produce fish & wildlife cover, and improve water temperatures.

PRODUCT: Re-vegetated riparian areas will contribute to bank stabilization, produce cover for fish & wildlife, and improve stream temperatures, (Connin, 1997). Stream temperatures will be targeted between 50-57 F (NMFS, 1997), (CRITFIC, 1995). We are also going to place barbs and rock structures in the stream to improve fish cover, increase water levels, decrease high flow velocities, as well as stabilizing banks.

OBJECTIVE 2: Identify work beyond the scope of the current project.

PRODUCT: The product for this objective will be a proposal of other projects within Lapwai Creek Watershed needing restoration for increasing anadromous and resident fish populations to historic levels.

c. Rationale and significance to Regional Programs.

Cattle grazing, transportation development, farming practices and flood events have caused a major destruction of fish habitat along Lapwai Creek. Although flood events occur naturally in any watershed, the flood event of 1996 had an even greater devastating effect on the creek due to man's ineffective managment practices. Lapwai Creek is currently confined to a fragmentary floodplain which has been severed from the historic floodplain by channelization and a highway and railway flanking the stream. Historically, Lapwai Creek was fairly sinuous and meandered across the entire floodplain. Floodplain encroachment and fragmentation has had two major effects on the stream that make it more unstable: 1) the channel confinement within a narrow floodplain forces the channel to make adjustments within the fairly narrow band (only 200 to 300 feet wide in many reaches); and 2) flood flows that once were at least partially detained in the floodplain during high flows are now concentrated within the narrow remnant floodplain, increasing the geomorphic work done on the channel during floods (Rhodes, 1997). With the riparian re-vegetation and in-stream structures, we will improve habitat for the historically present populations of A-steelhead and resident fish. This is directly related to the Fish Restoration Plan of the Tribes (CRITFIC, 1995) by reclaiming the environment for fish to thrive in. Riparian restoration helps many species of fish & wildlife while also helping to stabilize aquatic environments (Connin, 1991). The restored riparian corridors will create a vegetative column along the creek which serve as transportation routes for wildlife such as birds, bats, deer, and elk (Stevens et al, 1977). With the re-vegetation of the creek we will also improve its aquatic characteristics. The addition of a shade component will decrease water temperatures, increase streamflow, increase water depth, reduce sedimentation, stabilize the stream banks, elevate water-tables, and increase cover for fish (Connin, 1991). These benefits help to protect the treaty rights guaranteed by the treaty of 1855 with the Nez Perce Tribe of Idaho (Treaty 1855).

All of the work proposed will be done in conjunction with the Idaho Department of Transportation, Nez Perce County, as well as various departments within the Nez Perce Tribe.

d. Project history

Lapwai Creek was a project funded during the 1997 watershed program which was BPA# 9607700. During the 1997 season there were assessments done to choose a design to help eliviate problems associated with Lapwai Creek. Due to this process no money was put on the ground during the field season. The Idaho

Department of Transportation (IDT) will take the lead and begin working from the headwaters and move down the creek until they reach the town of Culdesac, at this point we will begin our work. Within the 1998 field season the IDT plans to place seven rock barbs and 172 rock drop structures. This distance to be covered is going to encompass roughly 28 miles. The design was developed by Geomax Corporation and we are going to use the same corporation to continue the project.

e. Methods.

METHODOLOGY - OBJECTIVE 1

This project is going to be carried out with the assistance of multiple groups including; the Nez Perce Tribe and Idaho Department of Transportation. The tasks within the stream bank stabilization include riparian revegetation and in-stream structure development.

SCOPE:

- **Revegetate riparian areas that have been damaged or lost.**
- **Revegetate in-stream structure key areas.**
- **Build in-stream structures (barbs and rock drop structures).**

METHOD:

- **Purchase native riparian species to be replanted.**
- **Plant both shrub and tree species throughout the riparian corridor.**
- **Buy materials needed for the rock structures and barbs.**
- **Use project design to place structures where they will be most beneficial to anadromous and resident fish.**

The methods with which the projects will be carried out are as follows. The riparian revegetation will be accomplished using native species of willow, hawthorne, alders, and cottonwoods. The willow, hawthorne, alders species will be placed at 4 foot intervals in a staggered pattern, while the cottonwoods will be placed approximately 15-20 feet from the stream bank and 10 feet apart. This spacing will allow for a diverse stream buffer contributing to the health of the riparian corridor and support a diverse community of fish and wildlife.

Within the re-vegetation of the project there are expected losses of seedlings & clippings due to browsing by wild animals in the area. These losses will be monitored throughout the field season and decisions will be made about any problems arising from these losses. We will evaluate the effectiveness of the revegetation by measuring the growth of the trees and shrubs during their growing season.

f. Facilities and equipment.

- **EQUIPMENT: Hoe-dads**
  AMOUNT: 6
  TO BE PURCHASED, RENTED, OR OWNED: Owned

USE: Hoe-daddies will be used for revegetation of plant species, namely trees.

- **EQUIPMENT: Tree Planting Bags**
  AMOUNT: 4
  TO BE PURCHASED, RENTED, OR OWNED: Purchased
  USE: To carry large numbers of seedlings to be planted.
- **EQUIPMENT: GSA Vehicles**
  AMOUNT: 2 (1-Ford Expedition, 1-Ford F-250 truck)
  TO BE PURCHASED, RENTED, OR OWNED: Leased
  USE: The GSA Vehicles will be used to transport employees, equipment, materials.
- **EQUIPMENT: Office Computer**
  AMOUNT: 1
  TO BE PURCHASED, RENTED, OR OWNED: Owned
  USE: The computer will be used to write reports.
- **EQUIPMENT: Tree Planting Bar**
  AMOUNT: 4
  TO BE PURCHASED, RENTED, OR OWNED: Purchased
  USE: The bars will be used to plant all riparian and wetland vegetation.
- **EQUIPMENT: Tree feeding auger**
  AMOUNT: 2
  TO BE PURCHASED, RENTED, OR OWNED: Purchased
  USE: These will be used to place trees that need to be placed deeper than one foot.

g. References.

REFERENCES

Clearwater national Forest and the Nez Perce Tribe, 1997. Challenge Cost-Share Agreement between the Clearwater National Forest and the Nez Perce Tribe. Lapwai, Idaho.

Connin, Steve. 1991. Characteristics of Successful Riparian Restoration Projects in the Pacific Northwest. U.S. Environmental Protection Agency, Region 10.

CRITFIC, 1995. WY-KAN-USH-MI-WA-KISH-WIT, Spirit of the Salmon, The Columbia River Anadromous Fish Restoration Plan of the Nez Perce, Umatilla, Warm Springs, and Yakama Tribes. Volume 1. Portland, Oregon.

EPA, 1993. Monitoring Protocols to Evaluate Water Quality Effects of Grazing Management on Western Rangeland Streams.

Fuller, R., Kucera, P., and Johnson, Dr. (1995). A biologist and physical inventory of streams within the Nez Perce Reservation. Nez Perce Tribe and Idaho

Department of Fish and Game. (1990). Clearwater River Subbasin: salmon and steelhead production plan.

Nez Perce Treaty of 1855, 1855. Nez Perce Treaty of 1855 with the United States Federal Government.

Rhodes, Jonathan J. 1997. Field Review of Impacts Associated with Actions Taken to Stabilize Banks and Rebuild Rail Line Along Lapwai Creek, Upstream of Lapwai, Idaho. Portland, Oregon.

Stevens, L.E., et. Al. 1977. Importance, Preservation and Management of Riparian Habitat: A Symposium. Rocky Mt. For. And Range Exp. Stn. Fort Collins, Colorado.

USDA, 1997. Forest Service National Resource Book on American Indian and Alaska Native Relations. FSM1563.

Section 8. Relationships to other projects

Several agreements (written and verbal) have been made between various agencies and individuals to work together with the *Nez Perce Tribal Watershed Management Program* in performing the two objectives proposed for the Lapwai Creek project in 1999. The staff and program manager, Ira Jones, constantly seek agreements and/or corporation between other agencies for work to be completed with the subbasin.

According to the Nez Perce Treaty of 1855 with the Federal Government, the government has a trust agreement to protect all tribal resources. This proposal will work toward protecting our resources, therefore fulfilling the federal government trust responsibilities. The project will also allow the tribe to manage our own tribal resources, which will in turn protect our sovereignty and treaty rights.

This project will directly help fisheries projects already funded by BPA. BPA has allotted $1,500,000 to the Nez Perce Tribal Hatchery (NPTH). The NPTH will incubate and early rear fish in their facility and then release them into the natural environment to continue their freshwater rearing, one of these sights will be located within the meadow. Lapwai Creek is an important A-steelhead production stream. In order for their program to achieve success, habitat conditions in the stream need to offer as beneficial conditions as possible. The objectives of this proposal will work to benefit fish and wildlife habitat for the Nez Perce Tribal Hatchery projects.

The Clearwater Focus Watershed Program is co-coordinated by Ira Jones of the *Nez Perce Tribal Fisheries/Watershed Management Program* and Janet Hohle of the *Idaho Soil Conservation Commission*. They will work directly with this project by coordinating multiple jurisdictions, multiple agencies, and multiple private landowners of this projects area, in efforts to protect and restore anadromous

fisheries habitat within the Lapwai Creek Watershed. The two co-coordinators are funded by BPA.

Section 9. Key personnel

NAME: Emmit E. Taylor Jr.
TITLE: Civil Engineer-In-Training
FTE: 1.0
DUTIES ON PROJECT: Road obliteration field inspector; Assist in analyzing, designing, and construction of bank stabilization structures. Co-coodinator for all Lolo Creek Drainage Projects.
QUALIFICATIONS: Emmit E. Taylor Jr. has a B.S. degree in Civil Engineering from Colorado State University. He has worked in several professional firms including, but not limited to, Colorado State University Transportation Program, Womer & Associates Engineering and Architecture Firm, and the Nez Perce Tribe.
DEGREE: Bachelors of Science in Civil Engineering - Colorado State University
CERTIFICATION STATUS: Civil Engineer-In-Training
CURRENT EMPLOYER: Nez Perce Tribal Fisheries/Watershed Management Program
CURRENT RESPONSIBILITIES: Assist in gathering, analyzing, and interpreting watershed data; represent program in various interdisciplinary teams; assist in surveying project areas; aid in assessing water resources/quality; knowledge of current computer software programs; design of civil engineering projects; supervise and field inspection of road obliteration; co-coordinate program projects.
PREVIOUS EMPLOYMENT:
EXPERTISE: Emmit E. Taylor Jr.'s background is in Civil Engineering with an emphasis in hydrology. Mr. Taylor's analysis, design, and construction work concentrates on stream rehabilitation, stream morphology, water quality, road obliteration, in-stream structures, and fish passage improvements.
PUBLICATION OR JOB COMPLETIONS: (1) Eldorado Fall Area Survey, (2) McComas Meadows Meadow Protection Project, (3) Squaw Creek Stream Survey and Analysis, (4) Colville Confederated Tribes HRD Building Site Development Design, and (5) Geiger Boulevard Environmental Analysis.

NAME: Felix M. McGowan
TITLE: Habitat Biologist
FTE/HOURS: 1.0
DUTIES OF PROJECT: Co-coordinator for all projects, riparian re-vegatation supervisor, fence placement coordinator and liaison between Forest Service and Tribal work crews.
QUALIFICATIONS: Felix M. McGowan has a degree in Biology from Gonzaga University. He has worked for the Nez Perce Tribe for one year. Prior to coming to this job he worked in a college setting at North Idaho College.
DEGREE: Bachelors of Arts in Biology, Gonzaga University

CURRENT RESPONSIBILITIES: Determine budget and staffing needs, prepare project work plans and coordination of projects, work with interdisciplinary teams, help to develop land management plans, coordinate fish, wildlife and cultural habitat requirements, investigate potential projects, and help inventory and evaluate habitat conditions.

PREVIOUS EMPLOYMENT:

1988-1994 McGowan Farms
1994-1997 North Idaho College
1997-present Nez Perce Tribe

EXPERTISE: Felix has a good base in the natural sciences. His work focuses on protection and restoration of riparian and cultural sites. These two areas require a knowledge of a variety of habitat types and how the different habitats interrelate with one another.

PUBLICATIONS OR JOBS COMPLETED: 1)Squaw Creek Road Obliteration, 2) Squaw Creek Stream Survey, 3)McComas Meadows Fencing Project, 4) Musselshell Meadows Fencing Project, 5)Johnson Creek/Cox Ranch Rehabilitation Review.

Ira Jones, Clearwater Subbasin Focus Coordinator (1 FTE)
Habitat/Watershed Manager, Nez Perce Tribe

Education

INSTITUTION	LOCATION	ATTENDANCE	MAJOR	DEGREES
University of Montana	Missoula, MT	Sept. 73 - June 74	Wildlife	N/A

Certificates N/A

Professional Organizations N/A

Employment History

March 3, 1997 to present, Clearwater Subbasin Focus Program Coordinator for the Nez Perce Tribe, Lapwai, Idaho. Duties: Analyze programs, laws, policies related to watershed management. Facilitate development of criteria to identify critical fisheries habitat. Develop system to apply criteria to watershed for project development and administration. Prepare plan documents for watershed habitat work coordination. Give educational presentations and workshops for watershed management and proposal development. Provide assistance to project proponents with proposal development, implementation, monitoring, and assessment.

May of 1996 to present, Habitat/Watershed Manager of the Nez Perce Tribe. Responsible for planning and implementation of the Early Action Watershed Projects for the Nez Perce Tribe.

6/25/1986 - 3/1/97, Tribal Government Program Manager, United States Forest Service, Region One.

12/14/80 - 6/25/86, Facilities Manager, United States Forest Service, Region One.

7/74 - 10/79, Fire Cache Work Leader, USDA Forest Service, Region One.

Relevant Job Completion's: 1) Coordinated National, Multi-Regional, and Regional Civil Rights conferences. 2) Facilitated Treaty Rights workshops with host tribes and multi-government agencies. 3) Organized and conducted Tribal Relations Training primarily for management level from the U.S. Forest Service, Tribes, Bureau of Land Management, and the Bureau of Indian Affairs. 4) Introduced, implemented, and managed the Inter-Tribal Youth Practicums for careers in natural resources and leadership within the U.S. Forest Service Regions 1, 5, 9, and 10. 5) Developed an Intergovernmental Personnel Act (IPA) position to work with the Salish Kootnai college to teach environmental science courses and develop a four-year natural science curriculum at the college. This three-year position and the program developed into a four-year accredited degree program in the fall of 1996.

Section 10. Information/technology transfer

The Tribe, in conjunction with the Idaho Department of Transportation will provide written reviews of the project. These reviews will be done on a quarterly basis and will also have a project completion review completed. Also during the monitoring and evaluation of the effectiveness of the project we will complete information reviews.